The opinion in support of the decision being entered today was <u>not</u> written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte VERONIQUE DOUIN, BENEDICTE CAZIN, and SANDRINE DECOSTER

Appeal No. 2004-0378 Application No. 09/765,675

HEARD July 27, 2004

Before SCHEINER, ADAMS, and GRIMES, <u>Administrative Patent Judges</u>.
GRIMES, <u>Administrative Patent Judge</u>.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-83, all of the claims in the application. Claims 1, 17, 20, 23, 64, and 78 are representative and read as follows:

- 1. An oil-in-water nanoemulsion comprising oil globules with an average size of less than 150nm comprising at least one oil, at least one amphiphilc [sic] lipid, and at least one cationic polymer comprising at least one hydrophobic block and at least one hydrophilic block.
- 17. A nanoemulsion according to claim 1, wherein said at least one amphiphilic lipid is chosen from nonionic amphiphilic lipids and anionic amphiphilic lipids.

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- 20. A nanoemulsion according to claim 17, wherein said anionic amphiphilic lipids are chosen from:
- alkyl ether citrates,
- alkoxylated alkenyl succinates,
- alkoxylated glucose alkenyl succinates, and
- alkoxylated methylglucose alkenyl succinates.
- 23. A nanoemulsion according to claim 1 further comprising at least one ionic amphiphilic lipid chosen from cationic amphiphilic lipids and anionic amphiphilic lipids chosen from:
- alkaline salts of dicetyl phosphate and of dimyristyl phosphate;
- alkaline salts of cholesteryl sulfate;
- alkaline salts of cholesteryl phosphate;
- lipoamino acids and salts thereof;
- sodium salts of phosphatidic acid;
- phospholipids; and
- alkylsulfonic derivatives of formula:

in which R, which may be identical or different in embodiments wherein more than one of said alkylsulfonic derivative is used, is chosen from C_{16} - C_{22} alkyl groups, and M is chosen from alkali metals and alkaline-earth metals.

- 64. A nanoemulsion according to claim 1 further comprising at least one aminosilicone.
- 78. An oil-in-water nanoemulsion comprising oil globules with an average size of less than 150nm comprising at least one oily phase, at least one amphiphilc [sic] lipid, and at least one nonionic polymer comprising at least one hydrophobic block and at least one hydrophilic block.

The examiner relies on the following references:

Ziegler et al. (Ziegler)	5,135,748	Aug. 4, 1992
Matzik et al. (Matzik)	5,716,418	Feb. 10, 1998
European Patent Applications Simonnet Restle et al. (Restle)	0 780 114 0 842 652	Jun. 25, 1997 May 20, 1998

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Japanese Patent Application Decoster et al. (Decoster)

10338899

Dec. 22, 1998

Claims 1-83 stand rejected under 35 U.S.C. § 103 as obvious, as follows:

- Claims 1-19, 21, 22, 30-62, and 68-83 in view of Restle and Ziegler;
- Claims 23-29 and 63 in view of Restle, Ziegler, and Simonnet;
- Claim 20 in view of Restle, Ziegler, Simonnet, and Matzik; and
- Claims 64-67 in view of Restle, Ziegler, Simonnet, Matzik, and Decoster.

We affirm the rejection of claims 1-62, 68-71, and 83 and reverse the rejection of claims 63-67 and 78-82.

Background

"Oil-in-water emulsions are known in the field of cosmetics and in the field of dermopharmacy, for example, for the preparation of cosmetic products such as lotions, tonics, sera and eaux de toilette." Specification, page 1. "The term 'nanoemulsion' means a metastable oil-in-water emulsion . . . whose oil globule size is less than 150 nm, these oil globules being stabilized with a crown of amphiphilic lipids. . . . The transparency of these emulsions derives from the small size of the oil globules." Id.

The prior art "disclose[d] nanoemulsions based on fluid nonionic amphiphilic lipids and on silicone surfactants. However, all these nanoemulsions are fluid. For certain uses, products are sought which can be measured out and taken up easily by hand. To do this, these products must have a certain level of consistency or viscosity." Id., page 2. "It is known to use, as thickeners for aqueous media, water-soluble or water-dispersible polymers . . . such as carbopol, wherein said polymers can have a long chain length and a high molecular weight. When such polymers are used in

compositions in the form of nanoemulsions, some of such nanoemulsions may tend to exhibit a decrease in at least one characteristic, such as stability and transparency." Id.

The specification discloses that "oil-in-water nanoemulsions comprising oil globules with an average size of less than 150nm comprising at least one oil and at least one amphiphil[i]c lipid can be thickened with at least one cationic polymer." Page 3. In a working example, the specification reports that an oil-in-water nanoemulsion containing a cationic polymer (quaternized (C₈-C₃₀)alkylhydroxyethylcellulose, a.k.a. Quatrisoft LM 200) was stable on storage for two months at room temperature and at 45°C, and had a turbidity of 375 NTU and a viscosity of 650 mPa·s. See page 50. By contrast, "[i]f the Quatrisoft LM 200 is replaced with the same amount of Carbopol Ultrez, a composition which is not thickened, not transparent (turbidity > 1000 NTU) and not stable on storage is obtained." Page 51.

Discussion

Appellants have grouped the claims subject to each rejection together, with the exception of claims 78-82, which are argued separately from the other claims rejected over Restle and Ziegler. See the Appeal Brief, page 6. We will consider claims 1, 20, 23, 64, and 78 as representative of the rejected claims. 37 CFR § 1.192(c)(7).

Claim 1 is directed to an oil-in-water nanoemulsion (i.e., an emulsion in which the oil globules have an average size of less than 150 nm), comprising an oil, an amphiphilic lipid, and a "cationic polymer comprising at least one hydrophobic block and at least one hydrophilic block." The specification states that amphiphilic lipids are also known as surfactants, emulsifiers, or surface agents (page 2) and that a wide variety of such compounds can be used in the claimed composition (see pages 8-33). The

specification also states that cationic polymers having the recited properties include "the products Quatrisoft LM 200 . . . sold by the company Amerchol and the products Crodacel QM, Crodacel QL (C₁₂ alkyl) , and Crodacel QS (C₁₈ alkyl) sold by the company Croda." Page 7

Claim 20 depends on claim 1 via claim 17 and adds the limitation that the amphiphilic lipid in the claimed composition is either nonionic (see claim 17) or is chosen from one of several listed anionic lipids.

Claim 23 depends on claim 1 and adds the limitation that the composition comprises an additional amphiphilic lipid, which is either cationic or one of several listed anionic lipids.

Claim 64 depends on claim 1 and adds the limitation that the composition also comprises aminosilicone.

Claim 78 is independent and is similar to claim 1 except that it requires the polymer in the claimed composition to be nonionic rather than cationic.

1. Claims 1-19, 21, 22, 30-62, 68-77, and 83

The examiner rejected claims 1-19, 21, 22, 30-62, 68-77, and 83 (together with claims 78-82, which are separately considered below) as obvious in view of Restle and Ziegler. The examiner characterized Restle as teaching a composition meeting all of the limitations of claim 1 except for the inclusion of a cationic polymer. See Paper No. 5, mailed August 16, 2001, paragraph bridging pages 2-3. The examiner relied on Ziegler for this limitation:

Ziegler et al. teach a cosmetic o/w [oil-in-water] composition comprising quaternary ammonium phosphate esters and 0.10-10% by weight of cationic polymers. . . . The reference teaches that the composition

provides stability against phase separation during freeze-thaw cycles and is effective in moisture retention.

Paper No. 5, page 3. The examiner concluded that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of Restle et al. by adding the cationic polymers, as taught by Ziegler et al., because of the expectation of successfully producing a cosmetic composition with enhanced stability and moisture retention." Id.1

"In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a <u>prima facie</u> case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant." <u>In re Rijckaert</u>, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). "[The examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." <u>In re Fritch</u>, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992).

In this case, we agree with the examiner that the cited references would have suggested a composition within the scope of claim 1 to those of ordinary skill in the art. Specifically, Restle discloses an oil-in-water nanoemulsion having oil globules with an average size of less than 150 nm (page 2),² at least one nonionic amphiphilic lipid (page 4), and at least one cationic amphiphilic lipid (page 4). Restle teaches that preferred

¹ In a subsequent communication, the examiner clarified that the rejection was based on the obviousness of adding <u>both</u> the cationic polymer and phosphate ester of Ziegler's composition to the composition disclosed by Restle. See Paper No. 7, mailed January 30, 2002, page 3. Appellants responded to this position in the Appeal Brief. See pages 13 and 14-16.

All citations to Restle refer to the English-language translation; a copy of the translation is enclosed with this opinion.

cationic amphiphilic lipids include quaternary ammonium salts (page 7) and that preferred nonionic amphiphilic lipids include

esters of at least one polyol selected from the group formed by polyethylene glycol including between 1 and 60 units of ethylene oxide, sorbitan, glycerol including between 2 and 30 units of ethylene oxide, polyglycerols including between 2 and 15 units of glycerol, and at least one fatty acid including at least one C₈-C₂₂ alkyl chain, that may be saturated or unsaturated, linear or branched.

Page 4. Specific examples of nonionic surfactants disclosed by Restle include polyethylene glycol isostearate with a molecular weight of 400, diglyceryl isostearate, sorbitan oleate, and sorbitan isostearate. See pages 6-7. Restle discloses that the resulting nanoemulsion compositions have increased storage stability compared to other nanoemulsions. See page 3.

Ziegler discloses an emulsion composition (either oil-in-water or water-in-oil, see column 2, lines 8-9) that comprises two essential components. "A quaternary ammonium functionalized phosphate ester is a necessary first component of the compositions." Column 2, lines 24-26. "A second essential component of the composition . . . is a cationic polysaccharide." Column 4, lines 20-21. A "[p]articularly preferred" cationic polymer is disclosed to be Quatrisoft LM-200. See column 5, lines 14-29. The combination of these components is disclosed to result in an emulsion with "excellent freeze-thaw stability . . . [and] moisture retention after water washing which is significantly better than state-of-the-art products." Column 2, lines 17-23.

Ziegler also teaches that the emulsion can also contain any of a variety of oils. See column 6, line 44 to column 7, line 56. Importantly, Ziegler also discloses that

[a]Ithough the quaternary ammonium functionalized phosphate esters are intended to be the primary emulsifier and surfactant . . ., there may also be

present nonionic emulsifiers. Examples of satisfactory nonionic emulsifiers include fatty alcohols having 10 to 20 carbon atoms . . ., mono and di-fatty acid esters of ethylene glycol wherein the fatty acid moiety contains from 10 to 20 carbon atoms, fatty acid monoglyceride wherein the fatty acid moiety contains from 10 to 20 carbon atoms, diethylene glycol, polyethylene glycols of molecular weight from 200 to 6000, sorbitol, [and] sorbitan.

Column 6, lines 12-38.

We agree with the examiner that the teachings of Restle and Ziegler would have suggested to those skilled in the art a composition within the scope of instant claim 1. Specifically, a person of ordinary skill in the art would have found it obvious to use Ziegler's quaternary ammonium functionalized phosphate ester as the cationic amphiphilic lipid in Restle's nanoemulsion, and to add Ziegler's cationic polymer (e.g., Quatrisoft LM-200) as an additional component in Restle's nanoemulsion. The resulting composition would be an oil-in-water nanoemulsion with oil globules averaging less than 150 nm and comprising an oil, an amphiphilic lipid, and a cationic polymer having at least one hydrophobic block and at least one hydrophilic block, as required by claim 1.

The skilled artisan would have been motivated to combine the components of Ziegler's and Restle's composition by the expectation of achieving a composition having the beneficial properties of both compositions (specifically, storage stability, freeze-thaw stability, and moisture retention after water washing). That is, Restle teaches that a composition having superior storage stability results when a nonionic amphiphilic lipid and a cationic amphiphilic lipid are included in an oil-in-water nanoemulsion, while Ziegler teaches that superior freeze-thaw stability results from combining a cationic polymer with a quaternary ammonium functionalized ester (as the primary surfactant) in emulsions, including oil-in-water emulsions, that can also contain nonionic surfactant(s).

Thus, those skilled in the art would have expected that combining all three ingredients in a single composition would result in a composition having all these properties. The references would have supported a reasonable expectation of achieving this result, since the components of the emulsions disclosed by Restle and Ziegler are very similar. Although Restle's composition is in the form of a nanoemulsion (with very small oil globules), Restle does not disclose any properties of nanoemulsions that would have been expected to interfere with an expectation of achieving a composition with freeze-thaw stability or moisture retention properties.³

Appellants argue that those of skill in the art would not have been motivated to combine Ziegler's cationic polymers (with or without a quaternary ammonium phosphate ester) with Restle's nanoemulsion composition. Appellants argue that the examiner's "statements amount to a conclusion that the addition of cationic surfactants and skin-conditioning cationic polymers to nanoemulsions is prima facie obvious, even without any specific motivation to select and combine the particular components merely because the components are known," and that "the Office's rational[e] is so broad that it would encompass essentially the modification of any composition by adding the two components of Ziegler for the purposes taught by Ziegler." Appeal Brief, pages 15 and 16 (emphases in original).

We disagree. For the reasons discussed above, we agree with the examiner that those skilled in the art would have found it obvious to combine the relevant components of the compositions disclosed by Restle and Ziegler. It is irrelevant, with respect to the

³ For example, Restle discloses that prior art oil-in-water nanoemulsions were similar to other oil-in-water emulsions in having poor storage stability. See page 3, first paragraph, and page 2, last paragraph.

obviousness of the instant claims, whether the prior art also would have suggested adding Ziegler's components to compositions other than those taught by Restle.

Appellants also argue that the references support, at best, an obvious-to-try rationale. Specifically, Appellants argue that

Ziegler does not recognize the differences between different emulsions, such as microemulsions and nanoemulsions. As shown in the paragraph bridging pages 1-2 of Appellants' specification, differences between nanoemulsions and microemulsions do exist.

Thus, while Ziegler may have made it obvious to try the components suggested therein to arrive at the claimed invention, such an obvious to try standard does not support a rejection under Section 103.

Further, the unpredictability of adding polymers to nanoemulsions has been shown by Appellants. For example, Appellants recite, "[w]hen such polymers [e.g., optionally crosslinked polymers] are used in compositions in the form of nanoemulsions, some of such nanoemulsions may tend to exhibit a decrease in at least one characteristic, such as stability and transparency."

Appeal Brief, page 19 (citing the specification, page 3). Appellants also point to the working example in the specification, which shows that Quatrisoft LM 200 and Carbopol Ultrez have different effects on nanoemulsions.

We do not agree that the prior art disclosures support only an obvious-to-try rationale. "An 'obvious-to-try' situation exists when a general disclosure may pique the scientist's curiosity, such that further investigation might be done as a result of the disclosure, but the disclosure itself does not contain a sufficient teaching of how to obtain the desired result, or that the claimed result would be obtained if certain directions were pursued." In re Eli Lilly & Co., 902 F.2d 943, 945, 14 USPQ2d 1741, 1743 (Fed. Cir. 1990).

Here, Appellants have not shown that nanoemulsions were known, to those skilled in the art, to differ from other emulsions in a way that would have cast doubt on the expectation of successfully combining Restle's and Ziegler's disclosures.

Appellants point to the specification's discussion of nanoemulsions and microemulsions, but make no effort to explain how the differences between these emulsions would have led those skilled in the art to doubt the applicability of Ziegler's disclosure to Restle's nanoemulsions.

Appellants also point to the specification's discussion of problems that can be encountered when adding thickeners such as Carbopol to nanoemulsions, and the different characteristics that result on addition of Quatrisoft LM 200 instead of Carbopol Ultrez. Again, however, Appellants have not explained why the known problems with using Carbopol as a thickener would have led those skilled in the art to doubt the effectiveness of adding Ziegler's Quatrisoft LM-200 to Restle's composition. This is especially true since Ziegler does not suggest adding a cationic polymer as a thickener, but as a component that contributes to freeze-thaw stability and moisture retention.

It may be true that Ziegler would not have motivated those skilled in the art to add Quatrisoft LM-200 to Restle's composition for the same reason that Appellants add it to their composition. However, <u>prima facie</u> obviousness does not require the prior art to suggest combining elements for the same reason Appellants combined them. <u>See In</u> re Dillon, 919 F.2d 688, 692-93, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990).

Appellants also seem to argue that the claimed composition has been shown to be unexpectedly superior to prior art products. This argument is not well-developed in the Appeal Brief, but Appellants do allude to their

demonstrat[ion] that the thickening, the transparency, and the stability of a nanoemulsion comprising at least [one] cationic polymer comprising at least one hydrophobic block and at least one hydrophilic block (Quatrisoft LM 200), at least one oil, and at least one amphiphilic lipid is greater than that of a nanoemulsion in which the at least [one] cationic polymer comprising at least one hydrophobic block and at least one hydrophilic block is replaced with the same amount of Carbopol Ultrez, a crosslinked acrylic acid homopolymer.

Appeal Brief, page 5. The specification states that "[t]he inventors have discovered, unexpectedly, that oil-in-water nanoemulsions . . . can be thickened with at least one cationic polymer, for example, at least one cationic polymer chosen from water-soluble and water-dispersible cationic polymers comprising at least one hydrophobic block and at least one hydrophilic block." Pages 3-4.

To the extent that Appellants intend to rely on the specification's working example as evidence of unexpected results, however, we find the evidence to be inadequate to overcome the <u>prima facie</u> case. It is true that "the PTO must consider comparative data in the specification in determining whether the claimed invention provides unexpected results." <u>In re Soni</u>, 54 F.3d 746, 750, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995).

However, "[t]he evidence presented to rebut a <u>prima facie</u> case of obviousness must be commensurate in scope with the claims to which it pertains." <u>In re Dill</u>, 604
F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979). "Commensurate in scope" means that the evidence provides a reasonable basis for concluding that the untested embodiments encompassed by the claims would behave in the same manner as the tested embodiment(s). <u>See In re Lindner</u>, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1972) ("Here, only one mixture of ingredients was tested. . . . The claims,

however, are much broader in scope, . . . and we have to agree with the Patent Office that there is no 'adequate basis for reasonably concluding that the great number and variety of compositions included by the claims would behave in the same manner as the [single] tested composition.'") (bracketed material in original).

In this case, Appellants have provided no evidentiary basis on which to conclude that the data shown in the specification's single example is representative of the full scope of claim 1. The specification appears to show that a composition comprising, among other things, 10% oil, 2.4% nonionic surfactants (PEG-400 isostearate and Tween 20), 1.9% cationic surfactant (behenyltrimethylammonium chloride), and 0.95% cationic polymer (Quatrisoft LM 200), when mixed together under specific conditions, has superior properties compared to a similar composition comprising a crosslinked acrylate polymer (Carbopol Ultrez). See pages 48-51.

Claim 1, however, encompasses oil-in-water nanoemulsions comprising any amount of oil(s), any number and amount of surfactants (anionic, cationic, or nonionic), and any cationic polymer, in any amount, that has at least one hydrophobic block and at least one hydrophilic block. Appellants have provided no evidence to show that those skilled in the art would have expected the specification's single exemplary composition to be representative of the full scope of compositions encompassed by claim 1. Even assuming the properties of the specification's exemplary composition were unexpectedly superior, therefore, Appellants' evidence is not commensurate with the scope of the claims, as would be necessary to overcome the prima facie case of obviousness.

We affirm the rejection of claim 1 as obvious in view of Restle and Ziegler. Claims 2-19, 21, 22, 30-62, 68-77, and 83 fall with claim 1.

2. Claims 78-82

The examiner included claims 78-82 in the rejection based on Restle and Ziegler. Each of these claims is directed to a nanoemulsion composition like that of claim 1, but including a nonionic polymer rather than a cationic polymer. The examiner's rejection did not specifically address this limitation of the claims.

Appellants argue that "[n]either Restle nor Ziegler teaches or suggests at least one nonionic polymer comprising at least one hydrophobic block and at least one hydrophilic block as presently claimed. . . . Accordingly, the Examiner has not and could not have demonstrated a prima facie case of obviousness over claims 78-82." Appeal Brief, page 10.

We agree with Appellants that the examiner has not shown that claims 78-82 would have been obvious in view of the cited references. In response to Appellants' argument with respect to these claims, the examiner argued that "[t]he nonionic lipids disclosed in the Restle reference in fact include polymers such as polysiloxane." Examiner's Answer, page 4. This argument is not a sufficient rebuttal: even assuming that the references would have suggested including "polymers such as polysiloxane" in a nanoemulsion composition, the examiner has made no effort to show that such polymers meet claim 78's limitation of "comprising at least one hydrophobic block and at least one hydrophilic block." Since the examiner has not shown that the references would have suggested a composition within the scope of the claims, the rejection of claims 78-82 is reversed.

3. Claims 23-29 and 63

The examiner rejected claims 23-29 and 63 as obvious in view of Restle, Ziegler, and Simonnet. We agree that the composition of claim 23 would have been obvious to those skilled in the art, although not for the reasons advanced by the examiner. Rather, we conclude that claim 23 would have been obvious in view of Restle and Ziegler, for the same reason discussed above with respect to claim 1.

Claim 23 is directed to the composition of claim 1, further comprising an additional amphiphilic lipid, which is either a cationic lipid or one of several listed anionic lipids. That is, claim 23 is directed to the nanoemulsion composition of claim 1, comprising an oil, an amphiphilic lipid (anionic, cationic, or nonionic), and an appropriate cationic polymer, and additionally comprising a cationic amphiphilic lipid. Thus, claim 23 reads on the composition made obvious by Restle and Ziegler, because that composition comprises an oil, a nonionic amphiphilic lipid, an appropriate cationic polymer, and a cationic amphiphilic lipid (specifically, a quaternary ammonium functionalized phosphate ester). Since the prior art would have made obvious at least one composition within the scope of claim 23, the claimed composition is unpatentable under 35 U.S.C. § 103.

This reasoning also compels affirmance of the rejection with respect to claims 24-27, which further limit the anionic lipids enumerated in claim 23, but do not further limit the claim with respect to cationic lipids. Further, the compositions of claims 28 and 29 would have been obvious in view of Restle and Ziegler, since Ziegler teaches that the quaternary ammonium functionalized phosphate ester (i.e., the cationic amphiphilic lipid) should be present in an amount ranging from 0.1 to 30%. Column 2, lines 3-7.

Since the range disclosed in the prior art overlaps the range recited in claims 28 and 29, the claimed compositions would have been <u>prima facie</u> obvious. <u>See In re Woodruff</u>, 919 F. 2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990) ("[C]ases in which the difference between the claimed invention and the prior art is some range or other variable within the claims . . . have consistently held that in such a situation, the applicant must show that the particular range is <u>critical</u>, generally by showing that the claimed range achieves unexpected results.") (citations omitted, emphasis in original).

However, we will reverse the rejection as applied to claim 63, which requires a composition having a turbidity within a specific range. The specification discloses that the recited turbidity is characteristic of a composition "hav[ing] a transparent to blueish [sic] appearance." Page 44. Restle and Ziegler do not discuss the transparency or turbidity of the disclosed compositions and therefore would not have led those skilled in the art to expect that the composition resulting from their combination would have the recited property.

Although Simonnet discloses transparent nanoemulsion compositions, we do not agree with the examiner that Simonnet can properly be combined with Restle and Ziegler. Rather, we find ourselves in agreement with Appellants' argument that

Simonnet merely discloses ionic amphiphilic lipids as being one of numerous optional ingredients. Further, Simonnet does not attribute any properties to these lipids. . . . Accordingly, Simonnet fails to provide the requisite motivation to make the proposed modification.

Appeal Brief, page 22. That is, Simonnet discloses that a transparent nanoemulsion can be produced if a "siliconized surfactant" is used (pages 3-4),⁴ but does not provide a

⁴ The citation is to the English-language translation of Simonnet; a copy is attached.

basis for those skilled in the art to expect that a transparent composition would result from the combination of Restle and Ziegler (with or without the additional ionic amphiphilic lipid discussed by Simonnet). We therefore reverse the rejection of claim 63.

We recognize that our rationale for affirming the rejection as applied to claims 23-29 differs from that of the examiner. We therefore designate our affirmance with respect to this rejection as a new ground of rejection under 37 CFR § 1.196(b).

4. Claim 20

The examiner rejected claim 20 as obvious in view of the combined disclosures of Restle, Ziegler, Simonnet, and Matzik. With this rejection as well, we conclude that the claimed composition would have been obvious in view of Restle and Ziegler alone and therefore affirm the rejection but designate our affirmance a new ground of rejection.

Claim 20 is directed to the composition of claim 1, wherein the amphiphilic lipid recited in claim 1 is either a nonionic amphiphilic lipid (see claim 17) or is an anionic amphiphilic lipid selected from several enumerated types. Thus, claim 20 reads on the composition made obvious by Restle and Ziegler, because that composition comprises an oil, a nonionic amphiphilic lipid (see Ziegler at column 6, lines 15-40; Restle, page 4, second paragraph), an appropriate cationic polymer, and a cationic amphiphilic lipid (specifically, a quaternary ammonium functionalized phosphate ester). Since the prior art would have made obvious at least one composition within the scope of claim 20, the claimed composition is unpatentable under 35 U.S.C. § 103.

Again, since our rationale for affirming the rejection of claim 20 differs from that of the examiner, we designate our affirmance with respect to this rejection as a new ground of rejection under 37 CFR § 1.196(b).

5. Claims 64-67

The examiner rejected claim 64-67 as obvious in view of the combined teachings of Restle, Ziegler, Simonnet, Matzik, and Decoster. Claim 64 is directed to the nanoemulsion composition of claim 1, further comprising an aminosilicone.⁵

The examiner acknowledged that none of Restle, Ziegler, Simonnet, or Matzik suggest adding aminosilicone to an oil-in-water nanoemulsion. The examiner characterized Decoster as "teach[ing a] cosmetic detergent composition comprising 0.5-5 weight % of aminosilicone along with anionic surfactant, amphoteric surfactants and cationic polymers." Paper No. 5, mailed August 16, 2001, page 5. The examiner concluded that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references by adding the aminosilicone, as taught by Decoster et al., because of the expectation of successfully producing a cosmetic detergent composition." Id.

We agree with Appellants that this rationale does not support a <u>prima facie</u> case of obviousness with respect to claims 64-67. The examiner has not provided sufficient evidence or sound scientific reasoning to show that those skilled in the art would have been motivated to select the aminosilicone disclosed by Decoster as useful in a cosmetic detergent composition, and to add that aminosilicone to the oil-in-water

⁵ According to the specification, "the term at least one 'aminosilicone' means any silicone comprising at least one amine chosen from primary, secondary, and tertiary amines or at least one quaternary ammonium group." Page 36. In addition, the terms "'silicone' and 'polysiloxane' are synonymous." Id.

nanoemulsion suggested by Restle and Ziegler. Therefore, the examiner has not made out a <u>prima facie</u> case of obviousness with respect to claims 64-67. The rejection of these claims is reversed.

Summary

We reverse the rejection of claims 63-67 and 78-82 and affirm the rejection of claims 1-62, 68-77, and 83. However, we designate our affirmance with respect to claims 20 and 23-29 as a new ground of rejection under 37 CFR § 1.196(b), in order to give Appellants a fair opportunity to respond. See In re Kronig, 539 F.2d 1300, 1302-03, 190 USPQ 425, 426-27 (CCPA 1976).

Time Period for Response

In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision

37 CFR § 1.196(b) also provides that appellants, <u>WITHIN TWO MONTHS FROM</u>

THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

- (1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .
- (2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Should appellants elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART, 37 CFR § 1.196(b)

Toni R. Scheiner

Administrative Patent Judge

Donald E. Adams

Administrative Patent Judge

) BOARD OF PATENT

APPEALS AND

) INTERFERENCES

Eric Grimes

Administrative Patent Judge

EG/jlb

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